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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,619	07/07/2005	Masaharu Takada	P70693US0	7831

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EXAMINER	
COHEN, JODI F	

ART UNIT	PAPER NUMBER
1791	

MAIL DATE	DELIVERY MODE
04/02/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 03/11/2010 have been fully considered but they are not persuasive.

2. Applicant first argues that examiner has incorrectly converted from poise to centipoises. Applicant states that 20-30,000 poises is equal to 0.02-300 centipoises. Examiner does not agree with this statement. There are 100 centipoises to every poise, thus 20-30,000 poise is equivalent to 2000 to 3,000,000 centipoises. Applicant's arguments regarding the conversions in the final office action are considered moot in view of these facts.

3. Applicant argues that Cobbs does not teach or suggest a piston pump, but rather Cobbs teaches using a disc mixer. In response to this argument applicant should note that Cobbs is not relied upon for the type of pump taught, but rather the high viscosity material used. Furthermore, Okuda specifically teaches using said material taught by Cobbs in the piston pump of Okuda thus one of ordinary skill in the art at the time of the invention would not dispute using the material of Cobbs in a piston pump. Applicant also cites Cobbs,

> It will be further recognized that the present invention can foam materials having viscosities from several thousand centipoises to 1,000,000 cps or more. However, below about 10,000 cps, it is usually more efficient to use a gear pump for foaming. Thus, the present invention finds particular applicability in foaming materials above 10,000 cps and typically above 50,000 cps where problems of inadequate mixing, unacceptable temperature rise, and reduced throughput arise and become increasingly acute.

Applicant believes this shows that one of ordinary skill in the art would not use a piston pump at the for mixing the paste material in the present claims, which applicant believes resides fully below 10,000 cps. This argument is based off of an incorrect conversion and thus is considered moot.

Additionally, the above statement is considered to be a suggestion as to a more efficient method but does not discredit the use of other methods and does not mention a piston pump at all. Therefore the above statement does not at all teach away from using the piston pump of Okuda with the material of Cobbs or the paste material in the present claims. The present combination of Okuda and Cobbs is similar to having a reference 1 teaching a washboard to wash a pair of trousers and reference 2 teaching a washing machine that would be suitable to use to wash trousers, such as those taught in reference 1, wherein reference 1 is Cobbs and reference 2 is Okuda.

Applicant finally argues the statement that "the effect of shear rate on viscosity is a known relationship for shear thinning fluids." On of ordinary skill in the art would know that this argument is similar to saying that an increase in temperature causes a decrease in viscosity. It is a law of physics. Basic physics teaches us that for non-Newtonian liquids, i.e. shear-thickening or shear-thinning fluids, the shear stress is proportional to the shear rate. For shear-thickening fluids the viscosity increases with the increase in shear. For shear-thinning fluids the viscosity decreases with the increase in shear. One of ordinary skill in the art at the time of the invention would have this knowledge and thus it would be obvious with routine experimentation optimize the shear rate of the substance to obtain the desired viscosity. However in an effort to be

thorough examiner has included a reference, herein after referred to as "viscosity," from a physics book showing the well known relationship of shear stress on viscosity of shear thinning or thickening fluids.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jodi Cohen whose telephone number is 571-270-3966. The examiner can normally be reached on Monday-Friday 7:00am-5:00pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/
Supervisory Patent Examiner, Art Unit 1791

/Jodi F. Cohen/

Examiner, Art Unit 1791